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10/687,386

10/15/2003

J. Christopher Moulder

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PACESETTER, INC.  
15900 VALLEY VIEW COURT  
SYLMAR, CA 91392-9221

EXAMINER

MALAMUD, DEBORAH LESLIE

ART UNIT

PAPER NUMBER

3766

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/687,386 | <b>Applicant(s)</b><br>MOULDER ET AL. |  |
|                              | <b>Examiner</b><br>DEBORAH MALAMUD   | <b>Art Unit</b><br>3766               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/20/07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group II (claims 20-26) in the reply filed on 24 January 2008 is acknowledged.
2. Claims 1-19 are cancelled; claims 20-26 are pending.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 20-26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 20-23 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Akiyama et al (U.S. 2002/0022867). Regarding claims 20, 22-23 and 25, Akiyama discloses (par. 0079; Figure 5) "the positive polarity of the electric energy storage section is connected to the inductor through the first switch means, and from the opposite side terminal of the inductor, through the third switch means, is connected to the negative polarity of the electric energy storage section; the opposite side terminal of the inductor is connected to the output electrode to apply the electric pulse onto the

Art Unit: 3766

patient through the second switch means and the inductor; and the output electrode is connected to the negative polarity of the electric energy storage section; to a portion between the first switch means and the inductor, the two diodes are connected in series, in which the inductor side is the anode, and the first switch means side is the cathode; the capacitor and the resistor are inserted between a portion between two diodes, and a portion between the inductor and the switch; the protective resistor is inserted between the output electrodes; and the apparatus has the charging circuit to charge the electric energy storage section; the two diodes are respectively inserted between both polarities of the electric energy storage section and the charging circuit; the voltage monitoring circuit is connected to both electrodes of the electric energy storage section; the apparatus has the drive circuit to control the open/close operation of the first switch means, the drive circuit to control the open/close operation of the second switch means, and the drive circuit to control the open/close operation of the third switch means; and the three drive circuits and the charging circuit are structured so that these can be controlled by the microprocessor; the current monitoring circuit is inserted between the positive polarity of the electric energy storage section and the first switch means; the resistor is inserted so that a portion between the current monitoring circuit and the first switch means, and a portion between the inductor and the second switch means are connected; the microprocessor at least has the ROM in which the data of the reference curve is previously stored, and the digital/analog conversion circuit to convert the data of the ROM to the analog data, the gain switching circuit, the pulse width modulation circuit in which at least the error amplifier is housed; the pulse width

modulation circuit is connected so that the voltage signal from the digital/analog conversion circuit and the voltage signal from the gain switching circuit are inputted; the gain switching circuit is connected so that the control signal from the microprocessor, the signal from the current monitoring circuit, and the signal from the voltage monitoring circuit are inputted; thereby, the biphasic electric stimulation pulse waveform can be freely outputted, and the conventional problems are solved, and it is effective in terminating the fibrillation of the heart in the cardiac diseases.” The examiner considers this to teach an output adapted for connection across a load (112a, 112b); a charging circuit; a first capacitor coupled between the charging circuit and the output (104); a second capacitor switchably coupled across the first capacitor and the output (106); a pulse-width modulation circuit that generates a pulse-width modulation control signal corresponding to a desired waveform; and an H-bridge including a first leg and a second leg, each leg including a pulse-width modulation control device configured to receive the pulse-width modulation control signal, and alternately switch between a closed state and an open state in response to the control signal, wherein: when the control device is in a closed state, the first capacitor is coupled across the second capacitor and the output; and when the control device is in an open state, the first capacitor is decoupled across the second capacitor and the output, and the second capacitor is coupled across the output.

6. Regarding claim 21, Akiyama discloses (par. 0154-0169) a method of operating the device including (step 2-11) "error amplifier (142) of the pulse width modulation circuit (143) compares the voltage signal (138) of the reference curve to the voltage

Art Unit: 3766

signal (137) of the electric energy storage section (104), and outputs the signal (139) to control the rate of the on (turning-on)-time of the switch (101) so that the voltage of the electric energy storage section is equal to the reference curve to the drive circuit (119) of the switch.”

7. Regarding claim 26, the examiner considers the capacitor as disclosed by Akiyama to naturally be a non-polar capacitor.

### ***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama et al (U.S. 2002/0022867). Akiyama discloses the claimed invention except for a third leg of the H bridge. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a third leg for an H bridge, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. See MPEP § 2144.04.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBORAH MALAMUD whose telephone number is (571)272-2106. The examiner can normally be reached on Monday-Friday, 9.00am-5.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on (571) 272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/  
Supervisory Patent Examiner, Art Unit 3766

/Deborah L. Malamud/  
Examiner, Art Unit 3766